

BEST AVAILABLE COPY**IN THE CLAIMS:**

Cancel claims 1-15 and 29.

Claims 16, 17, 21 and 25 were cancelled previously.

Please amend the claims as follows:

28. (Currently Amended) A system to detect precancerous and cancerous cells in a cell population, said cell population existing in epithelial tissue having an uppermost surface and tissue containing areas below said uppermost surface, said system comprising:

(a) brush means comprising bristles having sufficient stiffness to collect said cell population from said uppermost and said tissue containing areas below said uppermost surface,

(b) analytical apparatus comprising imaging apparatus for imaging said cell population,

(c) said imaging apparatus morphologically first selecting individual atypical cells from said cell population, and

(d) wherein said imaging apparatus comprises means to determine which of said individual selected atypical cells are the most atypical appearing cells from said cell population, and

(e) ~~(d)~~ means to conduct DNA ploidy quantization of said selected individual atypical cells after said atypical cells are selected.

PLEASE NOTE: A SEPARATE PAGE WITH THE RELATED APPLICATIONS SECTION AS WELL AS A COMPLETE LISTING OF CLAIMS FOLLOWS THE SIGNATURE PAGE OF THIS PRELIMINARY AMENDMENT.